

# Work Order ID 76305

**\*76305\***

Page 1

November-08-11 1:34:59 PM

Item ID: D4151-3 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Upper Hardpoint Plate  
 Start Date: 08/11/2011 Start Qty: 6.00 **\*6\*** Cust Item ID:  
 Required Date: 22/11/2011 Req'd Qty: 6.00 **\*6\*** Customer:  
 Reference:

Approvals: Process Plan: M.L.J Date: 11/11/08 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4151	C								

100 0.00  
**\*100\***  
 Waterjet **Memo** 0.00 B1-12-5  
 FLOW CNC Waterjet Cut as per dwg D4151  
 304.125 Prog Rev: C  
 Dwg Rev: C (10)  
 Deburr as required

110 0.00  
**\*110\***  
 QC **Memo** 0.00 B11-12-4  
 Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 76305

**\*76305\***

Page 2

November-08-11 1:34:59 PM

Item ID: D4151-3 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Upper Hardpoint Plate  
 Start Date: 08/11/2011 Start Qty: 6.00 **\*6\*** Cust Item ID:  
 Required Date: 22/11/2011 Req'd Qty: 6.00 **\*6\*** Customer:

## Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
<b>*120*</b>									
QC	Memo	0.00	8u12/05			(NO)			
Quality Control									
150	Identify as per dwg & Stock Location: <u>ST 734</u>	0.00							
<b>*150*</b>									
Packaging	Memo	0.00							
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
<b>*160*</b>									
QC	Memo	0.00							
Quality Control									

(100) 8p 11-12-05

11/12/06  
 WF  
 11-12-06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

November-08-11 1:35:04 PM

Page 1

Work Order ID: 76305

\*76305\*

Parent Item: D4151-3

\*D4151-3\*

Parent Item Name: Upper Hardpoint Plate

Start Date: 08/11/2011

Required Date: 22/11/2011

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A 10.06.24 new issue DD verf:EC  
IPP Rev:B 11.01.21 as per dwg revC DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S11GA		Purchased	No			100	sf	101.8000	0.055	0.347368	1.		
*M304S11GA*										**	B11-12-5		

304/316 0.125 Sheet

Location

Loc Qty

Loc Code

MAT020

101.8

119006

48.5

119048

53.3

119048

(10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

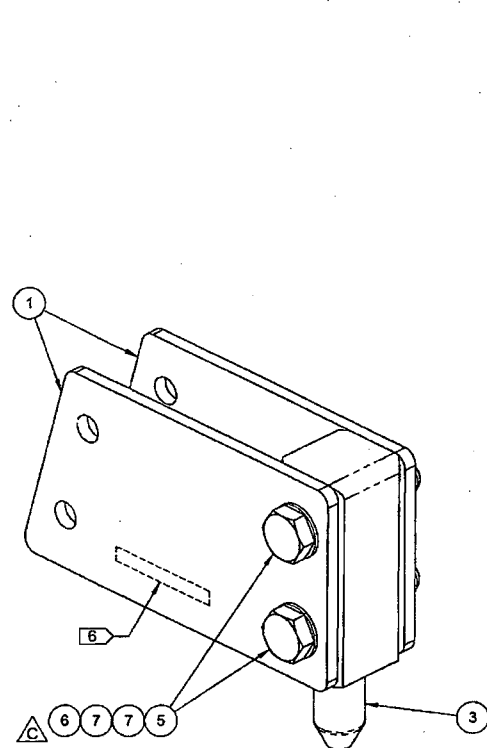
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

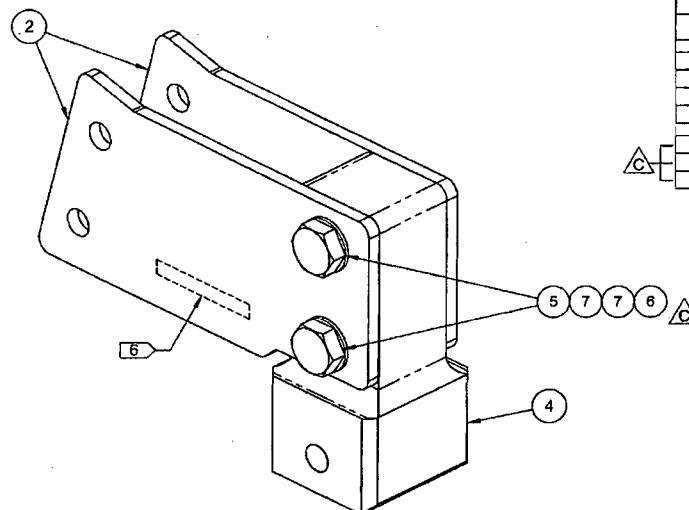
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





**D4151-041 BASKET FWD HARDPOINT ASSY (LOWER)**



**D4151-043 BASKET FWD HARDPOINT ASSY (UPPER)**

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
	X		D4151-041	BASKET FWD HARDPOINT ASSY (LOWER)
		X	D4151-043	BASKET FWD HARDPOINT ASSY (UPPER)
1	2		D4151-1	LOWER HARDPOINT PLATE
2		2	D4151-3	UPPER HARDPOINT PLATE
3	1		D4151-5	FWD BASKET INSTL STUD (LOWER)
4		1	D4151-7	FWD EYEBOLT RECEIVER (UPPER)
5	2	2	AN4C13A	BOLT
6	2	2	MS21043-4	NUT
7	4	4	NAS1149C0432R	WASHER

- NOTES:
- 1) MATERIAL: N/A
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4151-04X" USING FINE POINT PERMANENT INK MARKER
  - 7) WEIGHT:
    - D4151-041 = 0.88 lbs
    - D4151-043 = 1.17 lbs

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 76305 M.C.J  
11/11/08

C	AN4 HARDWARE WAS AN3 (B6-1, C3-1 & D3-1); $\phi 0.252$ WAS $\phi 0.191$ (C5-2, D1-2); TIGHTENED TOL ON 1.000 DIM (C5-2, D1-2, C7-3, C3-3); $\phi 0.250$ WAS $\phi 0.191$ (C6-3, B4-3); 1.83 WAS 1.75 (C1-2), 2.84 WAS 2.78 (B3-3) AND 1.86 WAS 1.80 (C1-3) TO PRESERVE 1.5SD. REASON: SEE D407-797 DESIGN JOURNAL.	MB	10.12.14
B	ADDED D4151-5/-7 (SHT 3); D4151-5 WAS D3911-1 (ZN B6-1 & D3-1); D4151-7 WAS D3911-3 (ZN C4-1 & D3-1) ITEMS #6, 6 & 7 REPLACE WS20815-4M20 (ZN C3-1, D3-1 & B6-1); $\phi 0.191$ 2 PL REPLACES $\phi 0.129$ 3 PL (ZN C5-2); $\phi 0.191$ 2 PL REPLACES $\phi 0.129$ 4 PL (ZN D1-2). REASON: SEE TR-D350-007-2 REV. B.	MB	10.07.05
A	NEW ISSUE	MB	10.06.22
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4151	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BASKET FWD HARDPOINT	NTS
DATE	10.12.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED  
R 2011-01-18  
MD

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

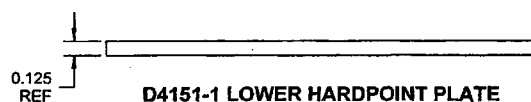
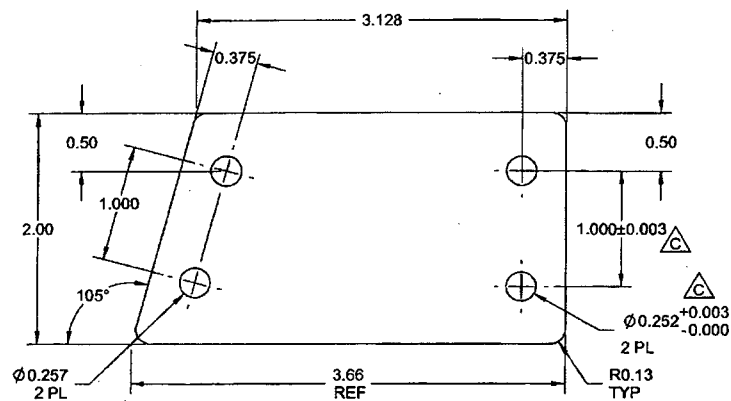
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

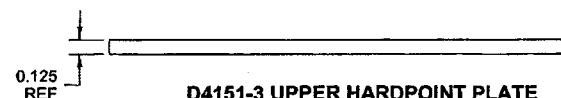
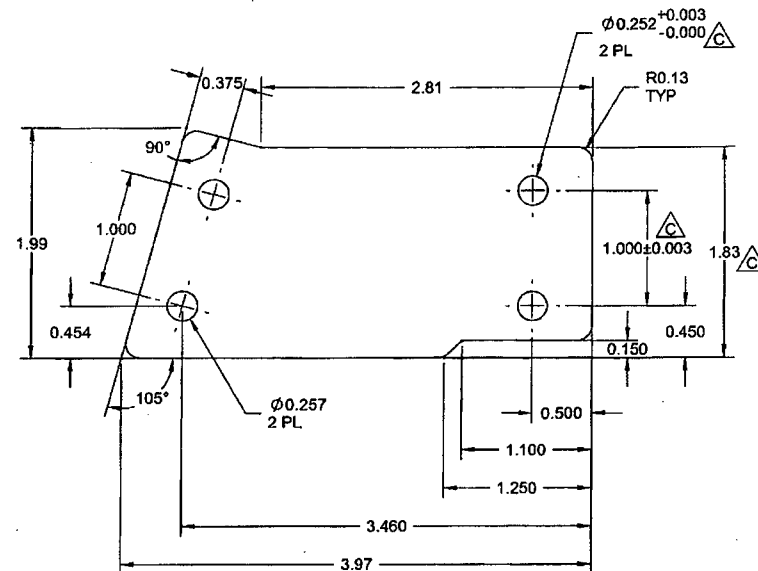
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

76305



**D4151-1 LOWER HARDPOINT PLATE**



**D4151-3 UPPER HARDPOINT PLATE**

**NOTES:**

- 1) MATERIAL: 303/304/316 STAINLESS STEEL SHEET ANNEALED 2B, 0.125 THK  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF. DART SPEC. M304S11GA OR M303S11GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY AT ASSEMBLY
- 7) WEIGHT:  
- D4151-1 = 0.24 lbs  
- D4151-3 = 0.23 lbs

**RELEASED**  
2011-01-18  
JMD

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. <b>D4151</b>	REV. C
MFG. APPR.		TITLE	SHEET 2 OF 3
APPROVED		<b>BASKET FWD HARDPOINT</b>	SCALE
DE APPR.			NTS
DATE	10.12.14	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

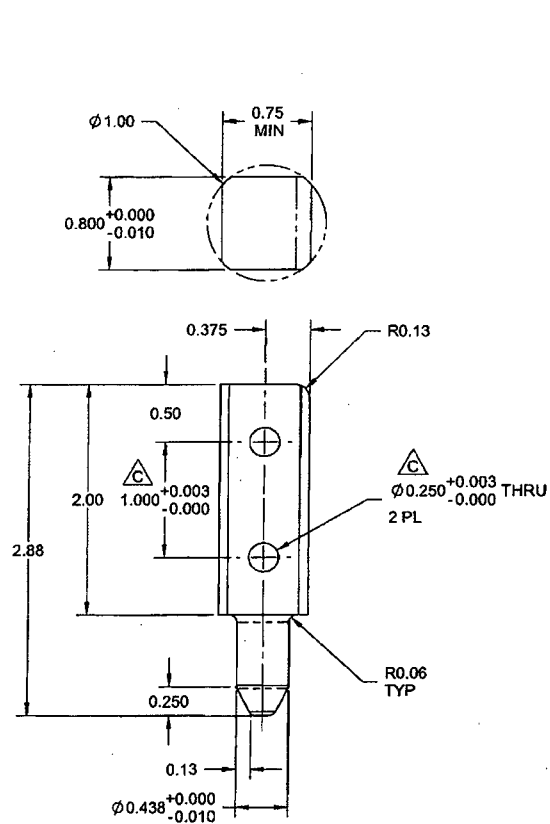
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

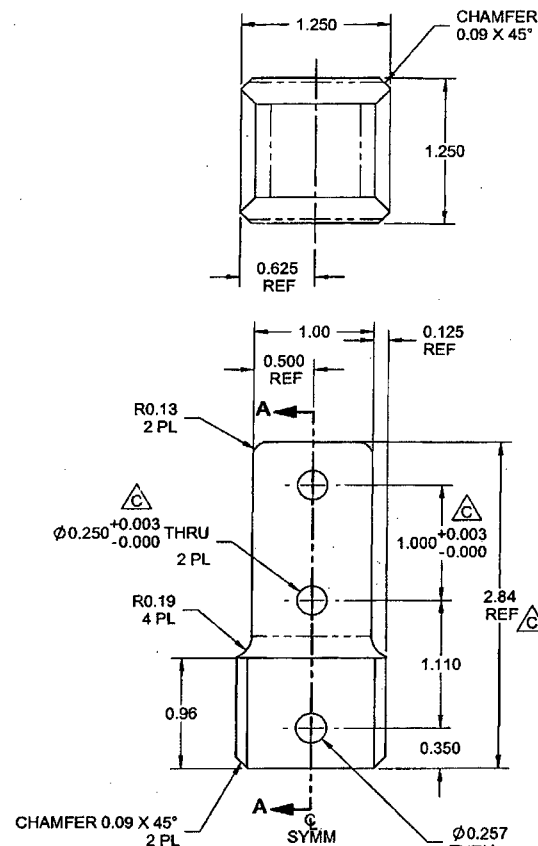
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

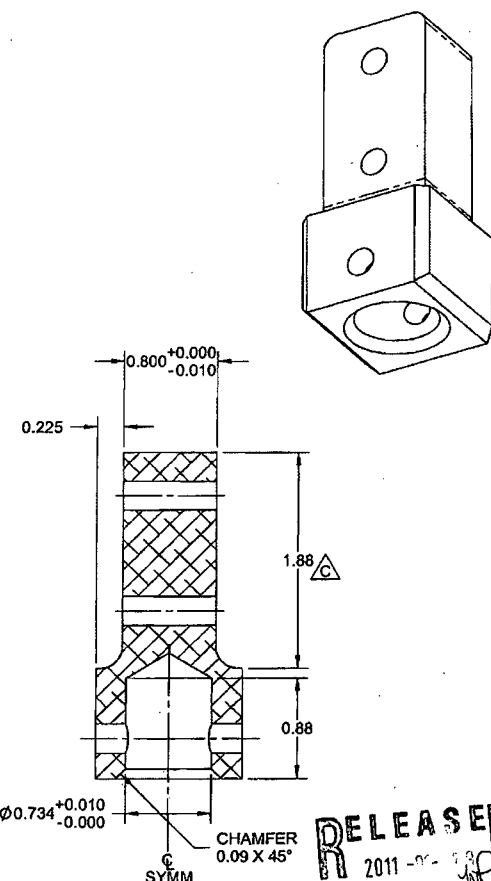
76305



**D4151-5 FWD BASKET INSTL STUD (LOWER)**




**D4151-7 FWD EYEBOLT RECEIVER (UPPER)**



**SECTION A-A**

**NOTES:**

- 1) MATERIAL -5: 303/304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276 OR ASTM A582  
PER DART SPEC M303R OR M304R
- 7: 303/304/316 STAINLESS STEEL BAR, PER ASTM A276 OR ASTM A582  
PER DART SPEC M303B OR M304B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY AT ASSEMBLY
- 7) WEIGHT -5: 0.36 lbs  
-7: 0.70 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN	JS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SC	DRAWING NO.	REV. C
MFG. APPR.		D4151	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.	HL	BASKET FWD HARDPOINT	NTS
DATE	10.12.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED  
2011-09-23  
RELEASED

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries